

doi: 10.3897/biss.3.37212

Conference Abstract

Using Wikibase as a Platform to Develop a Semantic **TDWG Standard**

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Received: 12 Jun 2019 | Published: 19 Jun 2019

Citation: Fichtmüller D, Reimeier F, Güntsch A (2019) Using Wikibase as a Platform to Develop a Semantic TDWG Standard. Biodiversity Information Science and Standards 3: e37212. https://doi.org/10.3897/biss.3.37212

Abstract

In the ABCD 3.0 Project the ABCD (Access to Biological Collection Data) Standard (Access to Biological Collections Data task group 2007) was transformed from a classic XML Schema into an OWL (Web Ontology Language) ontology (along side an updated semantic-aware XML version). While it was initially planned to use the established TDWG Terms wiki as the editing and development platform for the ABCD ontology, the rise of Wiki data and its underlying platform Wikibase have caused us to reconsider this decision and switch to a Wikibase installation instead. This proved to be a crucial decision, as Wikibase turned out to be a well-suited platform to collaboratively import, develop and export this complex semantic standard. This experience is potentially of interest to maintainers of other Biodiversity Information Standards (TDWG) standards and the Technical Architecture Group.

In this presentation we will explain our technical setup and how we used Wikibase, alongside its related tools, to model the ABCD Ontology. We will introduce the tools we used for importing existing concepts from the previous ABCD versions, running maintenance queries (e.g. for checking the ontology for consistency or missing information about concepts), and exporting the ontology into the OWL/XML format. Finally we will discuss the lessons we learned and how our setup can be improved for future uses.

Keywords

technical architecture, Wikibase, semantic standards, standard development

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Presented at

Biodiversity_Next 2019

Funding program

Literaturversorgung und Information / Erschließung und Digitalisierung: Standardbildung zur Erschließung und / oder Digitalisierung von Objektgattungen in wissenschaftlichen Sammlungen

Grant title

A community platform for the development and documentation of the ABCD standard for natural history collections. GU 1109/6-1.

References

Access to Biological Collections Data task group (2007) Access to Biological Collection
Data (ABCD), Version 2.06. Biodiversity Information Standards (TDWG). http://www.tdwg.org/standards/115. Accessed on: 2019-5-06.